

UAVSAR: FLIGHT PLANNING IN THE CLOUD

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Flight Planning

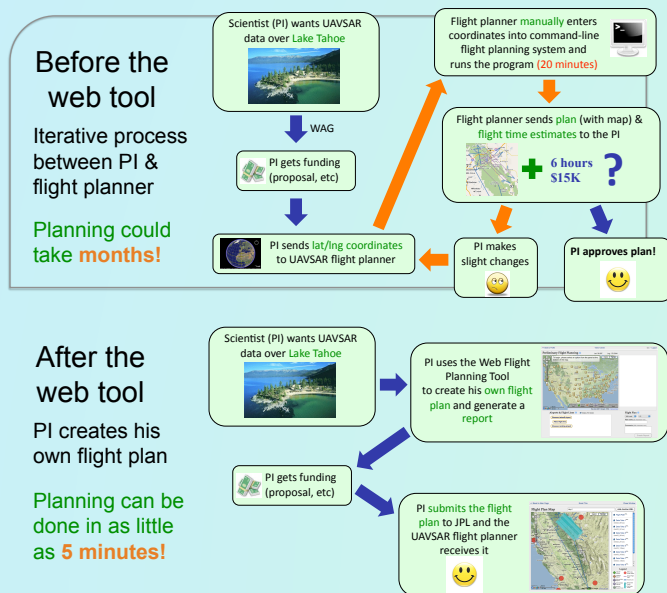


Flight planning for NASA/JPL's Uninhabited Aerial Vehicle Synthetic Aperture Radar (UAVSAR) is **currently** a **time-consuming task** for both principal investigators (PIs) and

UAVSAR members. UAVSAR is an airborne repeat-pass L-band polarimetric radar developed by JPL as an imaging radar testbed for future spaceborne missions.

We have developed an **intuitive, interactive web-based application** that will simplify the process of **submitting a flight request** by **making flight planning, time estimation, and cost estimation an easier task** for PIs and for JPL: <http://uavsar.jpl.nasa.gov/cgi-bin/fps>.

Case Study: Before & After



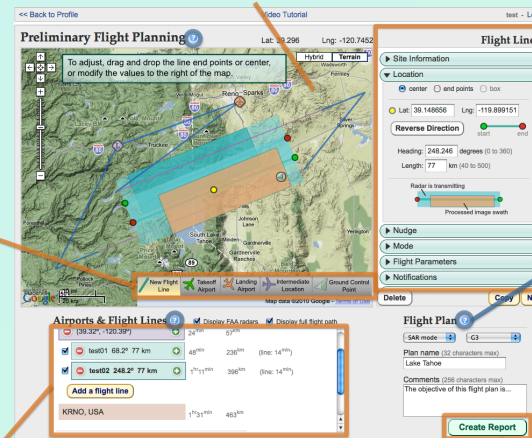
The UAVSAR Web Flight Planning Tool

Implementation

HTML & CSS (Cascading Style Sheets): webpage layout & design
JavaScript: website interactivity, including Google Maps API
Perl: queries to MySQL database & generating flight plan reports
Fortran: flight line calculations (heading, image swath, etc)

Directly interact with the map (click, drag, etc) to construct your flight plan

Map toolbar items that can be added to your flight plan

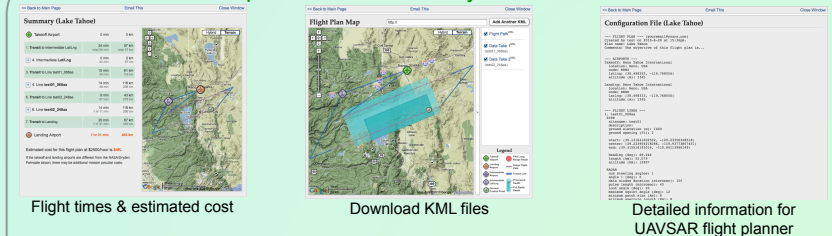


View and **edit** information about the **currently selected item** (in this case, a flight line)

Extensive help features

Drag & drop to **reorder** flight lines and see **flight times and distances** updated on-the-fly

Create a report that can be easily emailed & viewed online



Future (Version 2)

- ✓ **Administrator interface** – link web tool to software that creates the actual flight plans that will be flown
- ✓ **Import** past flight plans and flight lines
- ✓ **Support** other airborne instruments

